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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,222	12/21/2001	Jin Hee Jung	8733.445.00	3350

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EXAMINER

FINEMAN, LEE A

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,222

Applicant(s)

JUNG, JIN HEE

Examiner

Lee Fineman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 November 2003 has been entered in which claims 32-42 were added. Claims 1-42 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 8-11, 17, 23-24, 27, 29-33, 35, 37, 39-40 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by over Franklin et al., European Patent Application No. 0 477 882 A2.

Regarding claims 1, 10-11, 17, 23-24, 27, 29-33, 35, 37, 39-40 and 42, Franklin et al. discloses a polarizer stereoscopic display apparatus (fig. 1 and fig. 8a) comprising a liquid crystal display panel (12) for producing modulated light in accordance with signal data having a left-eye and right-eye image information (14, 16); a polarizer (column 2, lines 8-10 and fig. 8a) for passing a portion of the modulated light from the liquid crystal display, wherein a portion of modulated light has a predetermined polarization; a patterned retarder layer (22, figs. 1, 2a and 3-

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examiner notes that in fig. 3, the liquid crystal 64 in conjunction with electrodes 52 and 56 provide the retardance function for this element, additional substrates 54 and 58 provide rigidity to the retarder system 22 but do not provide any overall birefringence to the system) which is formed on a transparent substrate (fig. 3, 54) that is made of waveguide material; wherein the transparent substrate is adhered to/on/over/integrated with the polarizer (fig. 8a); and wherein said retarder layer is covered with a protecting polymer (fig. 8a); and wherein the patterned retarded layer includes a plurality of first area cells (26) for separating light polarization passed through the polarizer and the transparent substrate into a left-eye picture and a plurality of second area cells (24) for separating light polarization passed through the polarizer into a right-eye picture, wherein the plurality of first area cells and the plurality of second area cells are patterned in accordance with the predetermined pattern of said left-eye and right eye-modulated light (column 2, lines 7-35) and wherein the first and second cell areas are in alternating lines. The method of utilizing the structure of the claim is inherent therein.

Regarding claims 8 and 9, Franklin et al. further discloses including polarizing glasses (23) for receiving different polarization wherein the polarizing glasses have a different polarization for a left lens and a right lens (column 2, lines 35-41).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 2-3, 12, 18 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin et al. in view of Deanne et al., US Patent No. 6,627,305 B1.

Franklin et al. disclose the claimed invention except for explicitly stating that the transparent substrate (54) is made from a solvent-proof polymer, which does not affect polarization changes of the light between the polarizer and the retarder layer. Solvent proof polymers such as polyimide are well known in the art for use as substrates in liquid crystal systems as evidenced by Deanne (column 1, lines 38-39). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a well-known solvent proof polymer such as polyimide as the material for the transparent substrate of Franklin to reduce the weight of the system.

6. Claims 4-7, 13-16, 19-22, 25-26, 28, 34, 38 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin et al. in view of Moseley et al., U.S. Patent No. 6,046,849.

Franklin et al. discloses the claimed invention except for the retarder layer containing a chiral material made from a liquid crystal polymer mixture containing a chiral dopant and being exposed to light so as to be patterned with a plurality of first area cells for transmitting light for the left-eye picture and a plurality of second area cells for transmitting light for the right-eye picture wherein the first and second cell areas are in alternating lines or in a checkered pattern. Moseley et al. teaches a polarizer stereoscopic display apparatus (figs. 10-11) comprising a liquid crystal display panel (1), a polarizer (21) and a patterned retarder layer (20) containing a chiral material made from a liquid crystal polymer mixture containing a chiral dopant for enabling light modulation (column 18, lines 1-7) and is exposed to light so as to be patterned

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with a plurality of first area cells for transmitting light for the left-eye picture and a plurality of second area cells for transmitting light for the right-eye picture wherein the first and second cell areas are in alternating lines (figs. 17a-17d) or a checkered pattern (figs. 18a-18j). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the retarder layer of Franklin et al. include a chiral material made from a liquid crystal polymer mixture containing a chiral dopant and being exposed to light so as to be patterned with a plurality of first area cells for transmitting light for the left-eye picture and a plurality of second area cells for transmitting light for the right-eye picture wherein the first and second cell areas are in alternating lines or in a checkered pattern to provide a guiding twisted retarder (column 18, lines 4-6, Moseley). The method of utilizing the structure of the claim is inherent therein.

Further regarding claim 34, Franklin et al. discloses the claimed invention except for explicitly stating an adhesive layer contacting the transparent substrate and the polarizer. Moseley teaches using an adhesive to permanently affix the layers of the system (column 13, lines 57-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an adhesive, and thereby have an adhesive layer, to adhere the transparent substrate to the polarizer to ensure rigidity and minimize degradation to window quality.

Response to Arguments

7. Applicant's arguments, see page 13, line 11 – page 14, line 7, filed 26 November 2003, with respect to the definition of “on” have been fully considered and are persuasive. The rejection using the layer of polyimide 62 as the transparent substrate has been withdrawn.

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8. Applicant's arguments filed 26 November 2003 have been fully considered but they are not persuasive.

Applicant argues that liquid crystal retarder 22 as shown in fig. 3 of Franklin et al. cannot be reasonably interpreted as a patterned retarder. The examiner respectfully disagrees. While Franklin et al. discloses many embodiments of retarder 22 (e.g. fig. 2a - liquid crystal or 2b - natural crystal), all of them are patterned as shown in fig. 1 to provide, as stated in column 1, lines 9-11, "a full color three-dimensional liquid crystal device having alternating rows of fixed retardation varying phases by one-half wave." Fig. 3 as stated in column 4, lines 41-42 "reveals the construction of a basic crystal retarder 22," so while that particular drawing (side view) does not show the pattern, the liquid crystal retarder must be patterned for the system to function as described (see column 4, lines 25-36 and fig. 2a).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-23124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF

February 12, 2004



MARK A. ROBINSON
PRIMARY EXAMINER